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# Worldwide Report

EPIDEMIOLOGY

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6 February 1984

# WORLDWIDE REPORT

## EPIDEMIOLOGY

### CONTENTS

#### HUMAN DISEASES

##### CHILE

Effective Antityphoid Campaign Outlined  
(EL MERCURIO, 22 Dec 83)..... 1

##### Briefs

Menengitis Case Reported 3  
Black Widow Spider Bites Reported 3

##### COLOMBIA

Increased Incidence of Venereal Disease Reported  
(EL TIEMPO, 15 Dec 83)..... 4

##### HONG KONG

Reservoir Said To Be Fed by Stream Unfit for Human Use  
(Vaudine England; SOUTH CHINA MORNING POST, 22 Dec 83).... 7

##### Briefs

Water Pollution Monitoring 8  
Rise in Gastric Flu 8

##### JORDAN

Ministry of Health Makes Advances in Health Services  
(Abdallah al-Nusur; AL-DUSTUR, 19 Nov 83)..... 9

##### Briefs

Tuberculosis Kills 56 13

##### MALAYSIA

Measures To Check Typhoid Instituted  
(NEW STRAITS TIMES, 27 Dec 83)..... 14

Briefs		
Sarawak Dengue Cases		15
Dengue Hemorrhagic Fever Deaths		15
NICARAGUA		
Medical Equipment Maintenance Program Being Reorganized		
(EL NUEVO DIARIO, 27 Dec 83)		16
PEOPLE'S REPUBLIC OF CHINA		
Serological Epidemiology of Epidemic Hemorrhagic Fever Study		
(Zhang Zuoru; ZHONGHUA LIUXINGBINGXUE ZAZHI, No 6,		
Dec 83)		17
Ma Wenrui on Prevention of Hemorrhagic Fever		
(Yang Zongwu; SHAANXI RIBAO, 25 Dec 83)		18
Study on Transmission of Hepatitis B From Mother to Child		
(Wang Yuwu; ZHONGHUA LIUXINGBINGXUE ZAZHI, No 6,		
Dec 83)		19
Infection of Hepatitis B in Guangxi County Studied		
(ZHONGHUA LIUXINGBINGXUE ZAZHI, No 6, Dec 83)		20
Incidence of Malaria in Guizhou Drops in 1983		
(XINHUA, 23 Jan 84)		21
Schistosomiasis Spreading to North China Examined		
(Xu Juaijin, Shen Yixiang; JIANKANG BAO, 20 Sep 83)		22
Incidence of Infectious Disease Drops in Taiyuan		
(Zhu Zhewen; JIANKANG BAO, 29 Sep 83)		24
Briefs		
First Case of Microfilariae Discovered		25
PERU		
Briefs		
Malaria Triples in Three Years		26
SOUTH AFRICA		
Record Number of TB Cases Feared		
(THE CITIZEN, 10 Jan 84)		27

## TANZANIA

Briefs	
Cholera on the Wane	28

## UGANDA

Briefs	
Cholera Outbreak	29

## ZAMBIA

Briefs	
Tuberculosis Incidence	30

## ZIMBABWE

Briefs	
Outbreak of Mysterious Disease	31
Cholera Outbreak in Chiredzi	31

## ANIMAL DISEASES

### SYRIA

Animal Wealth Directorate Administers Inoculations (AL-BA' TH, 21, 25 Oct 83) .....	32
Fourth Quarter Total Campaign Ends	

### ZAMBIA

Tsetse Fly Increase Threatens Western Province Livestock (TIMES OF ZAMBIA, 7 Jan 84) .....	34
-----------------------------------------------------------------------------------------------	----

## PLANT DISEASES AND INSECT PESTS

### COSTA RICA

Minor Outbreak of Coffee Rust Reported (Lafitte Fernandez R; LA NACION, 16 Dec 83) .....	35
---------------------------------------------------------------------------------------------	----

### JORDAN

Extensive Spraying Campaign Combats Citrus Pest (AL-DUSTUR, 24 Nov 83) .....	37
---------------------------------------------------------------------------------	----

NEW ZEALAND

Briefs

Kiwifruit Bud Rot Disease	39
Grape Disease Strikes	39

PAKISTAN

Cotton Crop Failure Said Caused by Wrong Pesticides (Sikandar Hayat; THE MUSLIM, 2 Jan 84).....	40
----------------------------------------------------------------------------------------------------	----

TANZANIA

Briefs

Armyworms Threaten Crops	42
--------------------------	----

ZAMBIA

Briefs

Pests Destroy Maize, Cassava	43
------------------------------	----

CHILE

#### EFFECTIVE ANTITYPHOID CAMPAIGN OUTLINED

Santiago EL MERCURIO in Spanish 22 Dec 83 p A-3

[Text] The Ministry of Health has begun a new immunization campaign against typhoid in the metropolitan region. This time, the recipients are 12,000 food handlers. Previously, steps were taken to vaccinate 300,000 students.

This action carried out among high risk sectors follows Resolution 350, of January of this year, which prohibits farmers in the metropolitan area from irrigating crops growing at ground level with sewage water. It also follows the launching of a widespread publicity campaign against typhoid, started in November, and consisting of signs and pamphlets explaining the danger of an epidemic recording over 12,000 cases per year in Chile.

The virulence of typhoid fever in our country is due to the population's ignorance of sanitary customs. So, before Resolution 350, it was common to irrigate lettuce and other greens consumed raw with sewage water; and also, at present, the citizens do not realize that they must wash their hands before handling food, or else they will contaminate everything consumed in a restaurant or soda fountain.

Another habit is that of the greengrocer who, in order to give his products a fresh look, sprays them with sewage water before selling them. If one adds to this the fact that, in many households, greens are not washed or disinfected before consuming them, it is readily understandable that the eating of salads infected with salmonella typhi (the typhoid germ) is an everyday occurrence.

Salmonella typhi breaks out most virulently during warm seasons, and it is precisely from January to March that the population spends its vacations in places where the sanitary conditions are even worse than in Santiago restaurants and homes. All this combines to make the annual typhoid epidemic claim so many victims, who are saved only because of the antibiotics that exist today.

However, the disease is serious and requires at least a month's rest. This is also reflected in regrettable losses in the labor area, because each person sick with typhoid represents countless hours not worked and a decline in productivity.

In September, the health minister, Dr Winston Chinchon, stressed that, 3 years hence, sufficient coverage will have been achieved in the area of immunization

against typhoid; in other words, about 900,000 school children will have been immunized. Moreover, approximately 25 million pesos will be invested to vaccinate nearly 150,000 food handlers and population groups at high risk.

As for handlers under 30 years of age, who constitute the group with the highest risk, they are under obligation to be vaccinated, owing to the latent danger of contagion that they represent for the rest of the population.

2909

CSO: 5400/2031



CHILE

BRIEFS

MENINGITIS CASE REPORTED--San Antonio--The immediate transfer of a patient suffering from acute meningitis to Santiago was arranged as soon as the diagnosis was confirmed at the local hospital. Mario Fuentes Pereira, 33, a resident of Rafael de la Presa Street in Cristo Rey, presented himself at the emergency service of the Claudio Vicuna Hospital at 11 am yesterday, complaining of violent pain in the head and spine. He was immediately examined by the doctor on duty, who found a clinical picture indicating acute meningitis. On the orders of the chief physician of the emergency service, the patient was transferred to the Trudeau Infectious Diseases Hospital in Santiago at 3 pm for treatment. The emergency service at the local hospital was immediately isolated yesterday until it could be completely disinfected. Serious emergency cases are being handled by the trauma department at that same medical institution. [Text] [Santiago TERCERA DE LA HORA in Spanish 26 Dec 83 p 4] 5157

BLACK WIDOW SPIDER BITES REPORTED--Health Ministry authorities are drawing up a report on an invasion of black widow spiders in Temuco, where 406 persons have been bitten up to now. [Summary] [PY142349 Santiago LA TERCERA DE LA HORA in Spanish 11 Jan 84 p 9]

CSO: 5400/2034

INCREASED INCIDENCE OF VENEREAL DISEASE REPORTED

Bogota EL TIEMPO in Spanish 15 Dec 83 p 11-C

[Text] A major educational drive aimed at all levels of society would be the most powerful weapon for fighting the increased incidence of venereal disease in the country.

One expert remarked that in Colombia the so-called diseases transmitted by sexual contact are a taboo, a type of social embarrassment that is misinterpreted.

Despite the lack of complete statistics, the specialists think that they have progressed quantitatively to the point where they rank third in significance among communicable diseases.

The population stricken by the same diseases has also changed, and the specialists are of the opinion that those who engage in prostitution, the leading agents for contamination in previous years, are now the only population group that is properly controlled.

Fernando Angel, from the Bogota Health Secretariat, comments: "The problem is enormous. One notes the shift of venereal diseases from a very special population (prostitutes, soldiers and a very low social class) to the student population in secondary schools and universities."

A report from the Health Ministry published by Jorge Silva Medina, chief of the communicable diseases section, cites several causes for the spread of the diseases. Among them it includes sexual promiscuity, greater sexual liberation among the youth (the use of oral contraceptives and the loss of fear of pregnancy), the increase in homosexuality, mobility of the population, freedom in the use of antibiotics, self-medication, lack of education and failure to use preventive measures.

The specialists mention several factors that have a negative effect on the detection of venereal diseases. Dr Silva remarks: "In violation of the laws that exist in this regard, the venereal diseases treated by private physicians are never reported."

A second factor is the practice of self-medication or treatment provided by non-medical personnel. "Venereal diseases evade all the epidemiological mechanisms. They take place in a concealed, underground manner, and to disclose them would have implications of a socio-cultural nature."

#### Budget

During the past 3 years the Health Ministry has been engaged in implementing the national standards for the venereal diseases control sub-program. Through these standards, which are being supplemented, the control of various population groups has started on the national level. The latter include pregnant women and newborn infants. It is a noteworthy fact that 562 cases of children under 12 months of age suffering from syphilis were found last year, constituting an incidence of 73.2 per 100,000 inhabitants.

To execute these programs, the Health Ministry appropriated the sum of 16 million pesos in 1983, an amount which, as Silva Medina observes, is far short of that really needed to take action.

#### Serious Problem

Despite the fact that venereal diseases are not a major category among the causes of death, they have a very serious effect on the morbidity of the Colombian population, primarily syphilis and gonorrhea.

In this regard, Miguel Guzman, in charge of the venereal disease program at the National Institute of Health, comments: "There is a great deal of ignorance in the community as a whole, and among physicians and health personnel, regarding the diagnosis and clinical treatment of the diseases."

INAS is conducting a program aimed basically at laboratories, for the purpose of unifying the procedures used to diagnose the diseases.

Dr Guzman says: "The interest among the health agencies is fluctuating. Sometimes the ministry cuts off the funds, and we have to stop the programs."

Fernando Angel, of the Bogota Health Secretariat, adds: "Health comes after many other areas, and there are shortages everywhere. With the budgets, we have scarcely enough to make diagnoses and nothing for treatment."

#### 20 Percent Increase

Sister Socorro Delgadillo, the leading person at the District Laboratory for Venereal Diseases, thinks that the diseases transmitted by sexual contact have increased 20 percent during recent years.

Every month, the religious woman treats a population of between 3,500 and 4,000 individuals. She says: "We have seen from the statistics that syphilis has increased 10 percent, and gonorrhea 20 percent."

She adds: "The people are becoming aware of the fact that they should come for a check, especially when they are individuals leading active sexual lives. However, the checking is non-existent among the middle and upper classes, wherein they are still regarded as taboo diseases."

#### Research

In Bogota, research was conducted for 9 months on a drug (in the form of vaginal ovules) which, when applied before every relationship, would prevent contagion from any kind of pathology.

The research, carried out under the direction of Fabio Loaiza, executive secretary of the Colombian Urology Association, was done on 300 patients, checked for three consecutive periods between October 1982 and May 1983. As Dr Loaiza remarked, the results accrued were highly positive. However, the drug will not be marketed before there are further tests, which will be conducted in the United States laboratory producing it.

#### Education

The specialists queried agreed on the need to hold a massive educational drive that would begin in colleges and schools, and would be aimed at all strata of society.

"We are not seeking to eradicate venereal diseases from the country, because that would be impossible. They are diseases which are the legacy of mankind. We do hope to control them, but until there is education this will be impossible."

2909

CSO: 5400/2029

# RESERVOIR SAID TO BE FED BY STREAM UNFIT FOR HUMAN USE

Hong Kong SOUTH CHINA MORNING POST in English 22 Dec 83 p 16

[Article by Vaudine England]

[Text]

Plover Cove Reservoir is being fed by stream water unfit for human consumption, claims Chinese University biologist Dr Mark Kai-keung.

But while Government water specialists admit that the Lam Tsuen River (which Dr Mark also refers to as Tai-po River) is not clean, they maintain that the water produced from the reservoir is fine and pure.

Dr Mark, with colleague Mr Chow King-lau, conducted sampling tests on the major stream running through the Lam Tsuen Valley in the summer of 1973, and again this year.

Taking into consideration differences in sampling methods, Dr Mark concludes: "The pollution levels in the upper course and lower course appear to be improved.

"In the middle course, the bacterial count is higher than the past record, indicating pollution to be severe.

"Even though the summer rainfall was exceedingly high, the bacterial level still exceeds the Environmental Protection Advisory Committee (EPCOM) standard by more than 1,000 fold."

Dr Mark's 1973 study showed serious pollution: "With the coliform bacterial count far beyond the safety standard, this has significant hygiene implications," he said.

In the decade since that study, he notes, various anti-pollution measures have been introduced, such as setting up "safety standards," and encouraging farmers to pool farm manure and have it collected by the Agriculture and Fisheries Department.

Compost production, river clean-up work, maintenance of the river channel, treatment of liquid waste, recycling of animal manure, and the consideration of anaerobic digestion of agricultural discharges are all underway, he notes.

Although the population in the Tolo Harbour area has increased from 50,000 to 70,000, Dr Mark said the measures instituted should have achieved a lower pollution level.

"As a conclusion, the trend of increasing deterioration has already been countered by the various anti-pollution measures, but still the Tai-po River is seriously polluted from a hygienic point of view.

"The stream water thus is suggested not to be used for irrigation and channelled to the reservoir."

Official sources contacted by the SCM Post yesterday did not deny that the river is dirty — but they question Dr Mark's material.

"There is no safety standard which applies to this sort of water, neither from EPCOM, nor the Environment Protection Agency," the source pointed out.

Although Dr Mark describes the "Environmental Protection Committee" as formed through a sum of departments and responsible for the introduction of water standards, the source said EPCOM was merely advisory.

The EPA sets water quality objectives as an ideal to be aimed for, but these have not yet been finalised with regard to rivers.

An official source said Dr Mark had used sampling methods not used by the Government, and unlikely to be recommended by the Government as they were not very precise, did not have a good record of repeatability, and were not standardised.

When asked for comment, the principal environmental protection officer (water), Mr Paul Holmes, agreed that the river in question was not a very clean river, stating "there is no doubt about that.

"We are aware there is some pollution of the Lam Tsuen River caused by agricultural waste.

"But this does not mean that it is unsuitable for a large reservoir (such as Plover Cove)."

Mr Holmes noted that in such a large reservoir natural purification processes take place over time and that all water is purified by the Water Supplies Department before being made available for public consumption.

## BRIEFS

WATER POLLUTION MONITORING--A watchdog body to check on river pollution in the New Territories has been set up by the Health and Welfare Department. In addition new legislation is being drafted to control discharges under the Water Pollution Control Ordinance and will go before the Executive Council in the middle of next year. The Secretary for Health and Welfare, Mr Geoff Barnes, yesterday told the Legislative Council this would be aimed initially at industrial waste. Controls on agricultural waste are also being developed under the Public Health (Animals and Birds) Ordinance and the Waste Disposal Ordinance. The aim, said Mr Barnes, is to provide a sanitary means of waste disposal imposed through a licensing system. He was speaking in reply to Mr Chan Ying-lun who wanted to know what measures were being taken to control polluted streams running into the Tolo Channel. Mr Barnes then explained that a Central Steering Group on Watercourse Maintenance and Management had been set up to mastermind remedial action. It had already identified five problem areas including the Lam Tsuen river which runs into Tolo Harbour through Taipo and the Shing Mun River. [Text] [Hong Kong SOUTH CHINA MORNING POST in English 22 Dec 83 p 16]

RISE IN GASTRIC FLU--Doctors are puzzled by a dramatic increase in the incidence of gastric flu. Some private practitioners said that in the past two weeks almost 90 per cent of their patients--mostly children under eight--were suffering from the disease. While it was difficult to estimate how many children had been affected, doctors said that the number of patients they were treating--between 30 and 50 a day--indicated the problem was quite serious. One doctor, who declined to be named for professional reasons, blamed the increase on the "unusually warm weather" for this time of the year. While cases of gastric or intestinal flu are normally common during the summer months, sharp variations of temperature overnight can catch children off guard during the winter, he said. [Text] [Hong Kong SOUTH CHINA MORNING POST in English 17 Dec 83 p 1]

CSO: 5400/7521

## MINISTRY OF HEALTH MAKES ADVANCES IN HEALTH SERVICES

Amman AL-DUSTUR in Arabic 19 Nov 83 p 5

[Article by 'Abdallah al-Nusur: "The Minister of Health announces the Discovery of Leishmaniasis (Baghdad boil); 234 Cases of Epidemic Malaria are Treated; New Vaccines Introduced at Health Centers for General Use"]

[Text] Dr Zuhayr Malhas, minister of health, said health is the foundation of life and activity. It is always changeable and there is a firm relationship between it and the body and spirit which is manifested in the changes of an individual and which influences both his corporal and psychological being in various ways.

He added that Jordan considers health to be one of the ways by which bodily, mental, spiritual, and social peace are achieved, and it is not merely the opposite of disease, since that is a state that demands that one apply some effort to escape from it even though that effort is fraught with challenges and difficulties.

The minister spoke to the correspondent of the Jordanian news agency PETRA about the health situation comprehensively, as well as the problems and obstacles that confront the executions of many of the health projects and programs being implemented by the ministry in the course of its providing an advanced level of health service to all citizens.

### Role of Prevention

On the importance of the role of prevention Dr Malhas said that prevention is constant, and its goal is to prevent the root not the outward sign of a number of infections and diseases. For example even though malaria exists in Jordan it has been exterminated for two decades or more. Nevertheless continuous monitoring of people arriving from infested areas and mosquito control programs in all parts of the kingdom are conducted throughout the year. During the past year 233 cases of malaria were discovered in people coming from other Arab and non-Arab countries and all of them were treated. It is best to uncover the disease through this monitoring at airports and border checkpoints. This applies to Bilharzia also and since 1980 the Ministry of Health has continuously conducted a large scale, intense campaign to combat the snail carriers of this disease and to treat all those infested free of charge with the most modern medicines that science had provided.

The minister revealed the existence of a number of cases of Leishmaniasis or what is called "Aleppo pimple" or "Baghdad boil". He explained that the carrier of this disease is a desert rat which lives in burrows near trash heaps, and the disease is transmitted by a sand fly which thrives in poorly built or maintained housing units. This has been combatted by chemical spraying and by making sufficient medicaments available to treat those afflicted free of charge. As for the rats, he has ordered a thorough, prolonged eradication campaign and he asked for the participation of the municipality, agricultural, and health agencies to closely coordinate their efforts between them.

#### DPT Vaccinations

He said: "We are concentrating on giving DPT inoculations (comprising diphtheria, tetanus, and whooping cough vaccines). However many of those with children are not giving them their vaccinations out of ignorance and negligence. In the past week a number of cases occurred in Ma'daba that caused the death of a 3-year-old infant and it was discovered that the entire family had not been inoculated." The minister continued: "We are aiming now at the need for introducing new inoculations and making them widely available, even if the cost is high, because the effect of this is worth the expense. In addition to compulsory inoculations for poliomyelitis and tuberculosis and measles we are working to introduce compulsory inoculations for German measles and mumps and one for Viral B Hepatitis only for those exposed to this disease, namely blood bank workers, doctors, and nurses."

He added: "The Ministry of Health in 1980 introduced a means of rapid diagnosis and detection of heart disease, a preventive radiation method. We have begun to use synthetic vaccines made from human cells free from any harmful side effects (which often accompany the older vaccines). Naturally this costs a great deal."

He said: "The ministry cannot control a certain disease or effectively combat it without the support of the ministries of the interior, municipal affairs, and agriculture. It is necessary to step up the campaign against stray dogs, and to increase the inoculation and licensing of all domestic animals, especially cats and dogs."

#### Indigenous Diseases

The minister said in response to a question about the indigenous diseases: "We have some endemic diseases, such as various kinds of dysentery and others that come here from time to time, such as cholera. Throughout the year intense measures are taken to combat them. There exists a department for dysenteric diseases and cholera that weekly registers all cases of diarrhea counted in the Kingdom. It also registers all the cases that the unit cultures including the results of these cultured bacteria. Likewise the ministry does a bacterial check of all sources of drinking water, as well as of sewage and effluent, streams and canals, especially in the summer. In some of these this inspection is daily without abatement. The ministry also inspects the soil and vegetables on occasion in areas believed to be polluted or that have been used in violation of regulations."



## Role of Treatment

As for the role of treatment undertaken by the ministry, Dr Malhas said: "The requirements of this role have greatly increased." He explained, "Public and private means of information and the ease of movement and travel have had a definite impact on developing treatment services as part of health matters. It must be affirmed that there is a huge difference between the costs of prevention and treatment. At the Ministry of Health for instance, whose budget represents only 2.5 percent of the state budget, the budget for treatment services comprises more than 70 percent of its budget. This is burdensome because this proportion grows from year to year as advances, science, discoveries, and inventions have dictated changes so that the responsibilities of the ministry have grown. It has established a special division for premature infant care at al-Bashir hospital. There are centers for intensive care for heart disease that require special training and a large number of workers experienced in various experimental techniques. Continually we are compelled by the modern techniques of diagnosis to accept the need of importing and purchasing them, at high cost. Maintenance of these is expensive, such as the radioscopic diagnostic machines or chest, abdomen, or body scanners, or the computer enhanced transverse section scanner (CAT scanner). Likewise there are modern therapy techniques such as pacer machine which costs more than 400 dinars, used in the therapy of cancer. In addition there are new drugs that are very expensive for the treatment of cancer which are given free to the sick."

## Kidney Dialysis

Asked about kidney dialysis the minister said: "The ministry is picking up much of the costs of treatment for those citizens who cannot afford the complete treatment--renal dialysis is a costly procedure. Today there exists two centers for the treatment of chronic kidney diseases at the University hospital and at Husayn medical city. Also the ministry has just opened a third center at al-Bashir hospital. Now there is planned the opening of a fourth one at al-Amira hospital in Irbid. You should know that the cost for one patient on kidney dialysis comes to nearly 6000 dinars per year!"

"Two organizations have been established to help with the costs of the kidney patient in Amman and al-Zarqa'. We have not heard up to now if they have helped any patient or not."

## Kidney Transplants

Dr Zuhayr Malhas said: "There is another alternative in the kind of treatment, namely kidney transplants, which are becoming increasingly asked for. This possibility is offered at Husayn medical city. Some patients have been sent abroad for treatment, which costs 15,000 dinars." For those needing special treatment, or continuous, even life-long treatment, the minister pointed out that 30 beds have been set aside in al-Amir Hamzah hospital to treat dependence or addiction to drugs and alcohol. As for the poisons of cigarette smoking the ministry from time to time advises and warns the populace of the dangers and harmful effects of this practice.

## Traffic Accidents

In reply to a question about traffic accidents and ambulance services and the role of the Ministry of Health, the minister said: "Traffic accidents have come to be the central-most significant health hazard and top priority of the ministry. There is a need to establish a central office responsible for ambulance services and transport, along with trained personnel and to build units in the hospitals specializing in emergency care, medication, and medical supervision." Dr Malhas said: "The ministry has supervised very closely the introduction of medicines into Jordan for some years and in 1980 it built a medicine and drug control laboratory and consolidated equipment and appliances the cost of which came to nearly 300,000 dinars, in addition to the specialized technical staff of 17 chemists who run the investigation and tests of the laboratory, testing the imported and locally produced drugs. We have the capacity to test 130 drugs. It was discovered that more than 20 percent of the drugs tested were different than their acknowledged medical indications. The special inspectors office in the pharmacy bureau began to confiscate the sub-standard drugs in all the pharmacies of the Kingdom.

## Work Force

On the question of the distribution of the trained health work force the minister said: "We do not have enough workers in the various support health jobs, trained in good training programs, especially licenced midwives. For example, by the end of November 1983 the number of midwives in the Kingdom reached 275 only while we need twice that number. As for licenced nurses their number reached 1213 while we need three times that number. While the number of pharmacists and dentists has arrived at a reasonable level, the number of doctors has grown to be relatively more than is needed." The minister said in reply to a question about the surplus of doctors, "The number of registered doctors as of the end of the month reached 2960, or a ratio of one doctor to every 850 persons. That puts us in the ranks of the advanced countries. However, different studies tell us that there exists nearly 8000 students still studying medicine abroad who expect to return by 1990. The number of doctors in 1975 was 967 which had become 2175 by 1980, while it is anticipated that this number will come to 4800 doctors by 1985, that is 2000 doctors more than our needs." Dr Malhas added that the preparation one has does not frighten him, but that they must also look for and be concerned with the quality of a doctor in a particular specialty or field. And regulations and directives must be laid down for the board of higher education to restrict the study of medicine only to those who have completed the fifth level of high school, with an average grade of 70 or 80 percent.

9587

CSO: 5400/4508

## BRIEFS

TUBERCULOSIS KILLS 56--A report on the efforts by the centers combatting chest diseases in 1982 indicated that 564 cases of pulmonary tuberculosis were discovered of which 298 cases were in the Amman province, 138 in Irbid province, 61 in al-Karak province, 38 cases in Ma'an province, 2 cases in al-Tafilah district and 27 in al-Zarqa' district. The report also showed that 107 cases of non-pulmonary tuberculosis were discovered in the following provinces: 39 in Amman, 34 in Irbid, 5 in al-Karak, 3 in Ma'an, and 16 in al-Zarqa' district. It was reported also that 309 of the pulmonary tuberculosis cases were treated and cured according to the following breakdown by province: 120 cases in Amman, 125 in Irbid, 11 in al-Karak, 43 in Ma'an, 9 in al-Zarqa', and 1 in al-Tafilah. It was also reported that 70 of the other tuberculosis cases were cured as follows: 25 cases in Amman, 28 in Irbid, 2 in al-Karak, 7 in Ma'an, 7 in al-Zarqa' district, and 1 in al-Tafilah. The report stated that there were 58 cases of relapses of pulmonary tuberculosis following the treatment according to the following breakdown by province: 22 cases in Amman, 25 in Irbid, 3 in al-Karak, 4 in Ma'an, 3 in al-Tafilah district, and one in al-Zarqa'. The number of relapses of non-pulmonary tuberculosis came to 8: 3 in Amman province, one in Irbid, and 4 in Ma'an. The report further stated that there were 56 reported deaths from tuberculosis during the past year of which 53 cases were the result of pulmonary tuberculosis (20 in Amman province, 15 in Irbid, 5 each in al-Karak and Ma'an, 1 in al-Tafilah district and 7 in al-Zarqa' district). Of the other three deaths from non-pulmonary tuberculosis, one occurred in Amman and two in Irbid province. [Text] [Amman]  
AL-DUSTUR in Arabic 24 Nov 83 p 7 9587

CSO: 5400/4508

MEASURES TO CHECK TYPHOID INSTITUTED

Kuala Lumpur NEW STRAITS TIMES in English 27 Dec 83 p 3

[Text]

**KOTA KINABALU, Mon.**

— There has been an increase of typhoid cases in the State over the past two weeks, the Sabah Medical Department said yesterday.

The increase was more significant in the district of Tuaran where 13 cases were reported since the beginning of this month.

Six cases were reported in Kota Kinabalu while one each was reported in the districts of Semporna, Tambunan and Kota Marudu, a statement issued by the department said.

The department advised the public to take note of this health problem and observe preventive precautionary measures.

They should eat freshly cooked food, drink boiled water, use proper sanitary latrines, keep all cooked food covered, maintain a high level of personal hygiene and cleanliness in and around the house.

The statement said that the department was taking all measures to investigate, find cases and treat them.

"All control measures are being instituted in the affected areas," it added.

In appealing for the co-operation from the people, the department urged them to report any cases of fever to the authorities and send the sick to hospitals immediately.

CSO: 5400/4383

MALAYSIA

BRIEFS

SARAWAK DENGUE CASES--No dengue cases have been reported in Sarawak over the last 2 days. However, four suspected cases were reported on Saturday, including one dengue hemorrhagic fever. There are now 360 suspected dengue cases in Sarawak since the beginning of last year. The number of confirmed cases remains at 156. [Text] [BK061721 Kuala Lumpur Domestic Service in English 1130 GMT 3 Jan 84]

DENGUE HEMORRHAGIC FEVER DEATHS--Six persons died of dengue hemorrhagic fever in Sarawak last year, a marked increase from the one death reported in 1982. A spokesman from the state health and medical services department said there were 5,126 [as heard] suspected victims in Sarawak last year, compared with only 119 in 1982. Confirmed cases throughout the state last year totaled 156, compared with 40 in 1982. No dengue cases have so far been reported this year. [Text] [BK061721 Kuala Lumpur Domestic Service in English 1130 GMT 4 Jan 84]

CSO: 5400/4378

MEDICAL EQUIPMENT MAINTENANCE PROGRAM BEING REORGANIZED

Managua EL NUEVO DIARIO in Spanish 27 Dec 83 p 9

[Text] A reorganization of the engineering and maintenance system for all of the medical equipment and facilities existing in the country has been announced for early January 1984 by the Ministry of Health.

The establishment of a National Engineering and Maintenance Center which will be located in the old premises of the El Retiro Hospital is a part of this reorganization plan. The personnel who will serve the center will be trained there.

Three million dollars will be invested in this project. The first to be trained will be 70 young graduates of the La Salle Vocational Institute and the INTECNA in Granada. These new graduates will be trained in electronics, electricity and electromechanics.

The purpose is to maintain the 2 million cordobas which the investment in medical equipment and facilities for the Single National Health System represents, and to recover equipment through the work of innovators.

In the final days of this month, 23 workshops throughout the country are also being reorganized, with an investment of \$700,000. One of the workshops will be located in each of the six regions of the country, and 17 in the larger hospitals.

All of this effort is being made following the discovery that major losses are being incurred in medicines, food, blood and biological supplies due to the lack of equipment maintenance.

5157

CSO: 5400/2033

SEROLOGICAL EPIDEMIOLOGY OF EPIDEMIC HEMORRHAGIC FEVER STUDY

Beijing ZHONGHUA LIUXINGBINGXUE ZAZHI [CHINESE JOURNAL OF EPIDEMIOLOGY] in Chinese No 6, Dec 83 pp 339-341

[Article by Zhang Zuoru [1728 0155 0320] et al.: "Preliminary Study on Serological Epidemiology of Epidemic Hemorrhagic Fever With Renal Syndrome"]

[Summary] Eight cases of haemorrhagic fever with renal syndrome (HFRS) have been reported in Hebei Province since November 1980. Seroepidemiological surveys were carried out with indirect immunofluorescent antibody (IFA) and IFA inhibition tests at five places where HFRS cases had been found.

Two kinds of rodent reservoir were found, i.e. *R. norvegicus* and *A. agrarius*. HFRS relative antigen was detected in the lungs of *R. norvegicus* captured in a village of Fengnan County and two villages of Tangshan suburbs and the percentage of rats carrying the antigen was 18.9 percent, 12.9 percent and 16.1 percent, respectively. The rate of antigen carrier was 18.5 percent in October 1981, and 15.5 percent in March 1982. This antigen was also found in the lungs of *A. agrarius* and the rate antigen carrier was 3.7 percent; 17.9 percent of *R. norvegicus* tested had HFRS antibody.

All convalescent serum samples of eight patients reacted at high titer with the antigen made from the HFRS positive lungs of *R. norvegicus* (1:2560-1:10240) and with the KHF antigen (>1:40 or >1:1280). Whereas a sample taken at acute stage gave no reaction at 1:40 dilution. Of 396 serum samples collected from healthy persons living at the village where the antigen had been found in rodents only 2 gave low antibody titer (1:20 and 1:160). All of 179 serum samples collected from the healthy persons in the village where the antigen had not been found were negative.

CSO: 5400/4118

PEOPLE'S REPUBLIC OF CHINA

MA WENRUI ON PREVENTION OF HEMORRHAGIC FEVER

HK111026 Xian SHAANXI RIBAO in Chinese 25 Dec 83 p 1

[Report by Yang Zongwu [2799 1350 2976]: "Comrade Ma Wenrui Makes a Speech on Prevention of Hemorrhagic Fever"]

[Text] On the evening of 22 December, having listened to a report by the comrade in charge of the provincial office of public health on the present condition of hemorrhagic fever and its prevention in the whole province, Comrade Ma Wenrui, first secretary of the provincial CPC committee, said: At present, serious cases of hemorrhagic fever have appeared in some places of the province, which has done great harm to the security of life and health of the people. It is imperative to grasp the treatment and prevention of hemorrhagic fever as a matter of first importance in a down-to-earth manner.

He said: The provincial government should appoint a vice governor to be in charge of the matter, calling a meeting of the leading comrades of the five prefectures, cities, and counties concerned and experienced specialists to find out effective ways of treatment and prevention of the disease. It is necessary to organize well the efforts of all aspects, to bring about an upsurge of activities in the treatment and prevention of the disease on a mass basis, and to strive to control the continuous spread of hemorrhagic fever in a considerably short period of time. It is necessary to adopt every possible means to lose no time in saving and curing those who have already become victims of the disease.

The cause for the infection of hemorrhagic fever is rats. Various localities should make the most resolute determination to mobilize the masses in breadth to unfold activities in eliminating rats in a down-to-earth manner this winter and next spring. Linking with the activities of eliminating rats, we should do a good job in environmental sanitation in both urban and rural areas, rural areas in particular.

CSO: 5400/4120



STUDY ON TRANSMISSION OF HEPATITIS B FROM MOTHER TO CHILD

Beijing ZHONGHUA LIUXINGBINGXUE ZAZHI [CHINESE JOURNAL OF EPIDEMIOLOGY] in Chinese No 6, Dec 83 pp 321-323

[Article by Wang Yuwu [3769 5148 2976] et al.: "Study on Infection of Hepatitis B From Mother to Baby"]

[Summary] A study on the infection of newborn babies by HBV was carried out. The 59 HBsAg carrier mothers and their babies had been followed up for 30 months since parturition. Forty-four HBsAg negative mothers and their babies were studied simultaneously as control. Serum samples were taken from mothers and newborns immediately after delivery and 1, 3, 6, 12, 18 and 30 months later. The presence of HBsAg in sera was detected by RPHA. Twenty-nine (49.15 percent) of 59 HBsAg positive mothers' babies and 3 (6.82 percent) of 44 negative mothers became HBsAg positive during the observing period. The difference between the two groups is significant ( $P < 0.001$ ). The seroconversion possibility in babies was positively correlated with their mother's HBsAg titer ( $r = 0.85$ ,  $P < 0.01$ ). When mothers were HBsAg positive, the possibility for their children becoming HBsAg positive was greater than that of HBsAg negative ones. Twenty-five carrier mothers became HBsAg negative after delivery, 7 (28 percent) of their children gained HBsAg, while 22 (64.7 percent) of the 34 persistent carrier mothers' babies became HBsAg positive.

CSO: 5400/4118

INFECTION OF HEPATITIS B IN GUANGXI COUNTY STUDIED

Beijing ZONGHUA LIUXINGBINGXUE ZAZHI [CHINESE JOURNAL OF EPIDEMIOLOGY] in Chinese No 6, Dec 83 pp 331-334

[Article by Beijing Institute of Bioproducts: "Specific and Nonspecific Infection of Hepatitis B Among Population in Town Center of Lipu County of Guangxi Autonomous Region"]

[Summary] A cross section study of hepatitis B specific markers and liver function in a population of 1,310 (workers 859, primary school pupils at the age of 10±1 years 210, middle school students at the age 14±1 years 109, hospital and preventive center personnel 132) in Li-pu County, Guangxi Province, showed an overall HBsAg positive rate of 14.5 percent (RPHA), anti-HBs 37.8 percent (SPRIA), anti-HBc 35.0 percent (IAHA), abnormal transaminase levels 5.1 percent, abnormal thymol turbidity test values 8.2 percent, enlargement of liver 3.8 percent. The highest positive rate of HBsAg was 22.9 percent in the middle school group, and the highest positive rates of anti-HBs and anti-HBc group were 49.2 percent and 55.3 percent in the hospital and preventive center personnel. The overall infection rate of HB in the county was 62.5 percent, and it would be a little higher (66.7 percent), if those with only abnormal liver functions were included.

CSO: 5400/4118

PEOPLE'S REPUBLIC OF CHINA

INCIDENCE OF MALARIA IN GUIZHOU DROPS IN 1983

OW230216 Beijing XINHUA in English 0200 GMT 23 Jan 84

[Text] Guiyang, 23 Jan (XINHUA)--The incidence of malaria in Guizhou's 41 counties with a population of 15 million dropped to 0.45 per thousand in 1983 from 0.8 per thousand in 1976, according to the provincial parasitosis institute.

Guizhou was formerly renowned for its high incidence of the disease.

Thanks to the efforts in the past 20 years and more, the city of Kaili, with a population of 310,000, the seat of the Miao-dong autonomous prefecture of Qiandongnan, has basically become a malaria-free area. The incidence of the disease was reduced to 0.006 per thousand in 1982 as against 94.4 per thousand on 1957.

The city's epidemic prevention station has gained great experience in the prevention and cure of malaria. Apart from studying and taking measures against the mountain mosquitoes which carry the disease, the station has instituted a management and monitoring system at city-, district- and commune-levels so as to prevent the recurrence of the disease.

Two thousand medical technicians from 11 provinces have visited the city since 1974 to share its experience.

At the end of 1983 the Guizhou people's government gave a scientific award class two to the parasitosis institute and the Kaili epidemic prevention station in recognition of their efforts in the control of the disease.

According to statistics, the number of China's malaria victims has dropped to 3 million from 30 million in the early 1950's.

CSO: 5400/4120

SCHISTOSOMIASIS SPREADING TO NORTH CHINA EXAMINED

Beijing JIANKANG BAO in Chinese 20 Sep 83 p 1

/Report by journalists Xu Huaijin and Shen Yixiang and correspondent Bi Chu:  
"Will Water Diversion Spread Schistosomiasis?"

/Text/ Journalists Xu Huaichu and Shen Yixiang and correspondent Bi Chu reported that concerning the question "Will water diversion spread schistosomiasis to the north?" the conclusion of the scientific researchers is that the oncomelania (a kind of fresh-water snail, which is the immediate host of the blood fluke) can float and spread with the water current or with the northward floating materials in the current. However, since the northern climate and soil are not suitable for the snails, it is rather difficult to form new distributive regions for oncomelancias. Preventive measures are still needed to avoid possible spread.

Since 1978, a cooperative group made up of members from more than 10 units, including the Jiangsu Province Schistosomiasis Prevention Research Center, Shandong Province Research Institute of Parasitic Diseases and Anhui Province Schistosomiasis Prevention and Treatment Center, has embarked on research on the possible effect of water diversion on oncomelania distribution and the problem of preventing the spread. During 1978 and 1979, they established nine points in the lower reaches of the Changjiang, including the counties of Nanjing Yizheng, to catch and observe oncomelancias regularly. Of the 18,000 jin of floating matter gathered, the count of oncomelancias discovered was 5,000, among which only the 18 gathered in Nanjing were alive. The rest were dead. In 1980, they further investigated the several shiplocks in the surrounding areas of Shiqiao bridge and Yangzhoudaqiao bridge. Only three of the shiplock areas under investigation did not have oncomelancias. Oncomelancias were found both at Wanfuzha gate, which is located at the water pumping site of the Jiangdu water control center, and at the Shaobozha gate, where the water pumped up from the Changjiang passes through to enter the Grand Canal. The oncomelancias found could be native ones, yet we cannot rule out the possibility of oncomelancias spreading through water diversion.

The northernmost limit of oncomelania distribution is latitude 30 degrees, 15 minutes north located in Jiangsu Province, Baoying County. Scientific workers combined worksite observation and laboratory research to study the survival and propagation abilities of oncomelancias. A large quantity of the data derived from the experiment has demonstrated that the climate, soil and other natural

conditions of the area beyond latitude 33 degrees, 15 minutes north are not suitable for the propagation of oncomelantias, for the winter temperature is increasingly lower and the mortality rate of oncomelantias increases along with the increasing degeneration of the reproductive glands of both the male and female oncomelantias.

According to the scientists' opinion, before the full implementation of water diversion, effective measures should be taken to prevent the northward spread of oncomelantias during water diversion. In addition to continuing the extermination work on the leftover oncomelantias living in the river and on lake beaches to the south of Baoying, we should exterminate those that live in the surrounding areas of the shiplocks and along the revetment of the Grand Canal as soon as possible. The hydraulic department of Jiangsu plans to build trashracks and grass scooping machines at the large-scale water pumping station of the lower reaches of the Changjiang to prevent the oncomelantias from floating northward with other matter. The scientific research cooperative group has established observation posts from the southern edge of the area north to the latitude 33 degrees, 15 minutes north to make regular inspections for the timely discovery of any migrant oncomelantias from the south.

12453

CSO: 5400/4113

INCIDENCE OF INFECTIOUS DISEASE DROPS IN TAIYUAN

Beijing JIANKANG BAO in Chinese 29 Sep 83 p 3

/Article by Zhu Zhewen /2612 0772 2429/: "Effective Antiepidemic Measures in Taiyuan Reduce Incidence of Seven Infectious Diseases"

/Text/ There has been a large drop in incidence of seven kinds of infectious diseases in Taiyuan during the first half of the year as compared with the same period of last year: measles dropped by 81.4 percent; meningococcal meningitis dropped by 51.8 percent; whooping cough dropped by 46.1 percent; hepatitis dropped by 32.9 percent; dysentery dropped by 27.3 percent; typhoid dropped by 24.8 percent; and scarlet fever dropped by 17.3 percent. Incidence of food poisoning was reduced substantially also.

The reason for the large-scale decrease of infectious disease incidence in Taiyuan is because of the serious attention paid to antiepidemic tasks by the city and county public health departments who firmly grasped the comprehensive antiepidemic measures.

(1) Planned antiepidemic work was strengthened. The preventive inoculation rate was greatly increased. The inoculation rate and the "three books and one card" card-building rate have both exceeded 90 percent.

(2) The spread of infection through medical sources has been prevented. Most medical treatment units have established enteric outpatient divisions. The practice of sterilizing the injection needle and tongue depressor after each use is being observed. The antiepidemic department also examined the liver function and the surface antigen of the 1,995 blood donors in the city. Now, those who do not pass examination are not given blood donor certificates.

(3) Food hygiene inspection has been strengthened through propaganda and the implementation of the "Food Hygiene Regulations" (now practiced on a trial basis). The standard for issuing food-handling permits must be strictly observed. Physical examinations are given to the 20,000 personnel in food-handling jobs. All those carrying infectious diseases have been transferred to other jobs which do not involve direct handling of food.

BRIEFS

FIRST CASE OF MICROFILARIAE DISCOVERED--The Epidemic Prevention Laboratory of the Changzheng Hospital affiliated with the Second Army Medical College in cooperation with the Hematology Laboratory technicians of the Shanghai Third People's Hospital through clinical diagnosis and a laboratory test has discovered a case of microfilariae--the first occurrence of this rare disease in China. In May 1983, a 46-year-old male patient from an Anhui rural area came to the Shanghai Third People's Hospital for treatment of severe anemia. The clinical diagnosis and laboratory test results both indicated some nonconformity with ordinary B lymphocyte disorders. Further study in cooperation with the Changzheng Hospital Antiepidemic Laboratory using advanced technology finally determined that this was a case of microfilariae. The research has provided favorable conditions for treating the rare disease. /Text/ /Beijing JIANKANG BAO in Chinese 23 Sep 83 p 17 12453

CSO: 5400/4113

PERU

BRIEFS

MALARIA TRIPLES IN THREE YEARS--The rate of malaria in Peru has nearly tripled in the last 3 years, particularly in Tumbes, Piura, and Lambayaque, because of 6 months of heavy rains and floods in those areas. Juan Dextre, director of the national malaria control program, said that 16 years ago the rate of that disease in Peru had been reduced to 45 cases for every 100,000 inhabitants. He added, however, that by 1969 the number of cases had increased to 20,483, that is, 332 cases for every 100,000 inhabitants. Dextre admitted that the figure could even be greater, because the malaria program has not reached some areas of Peru due to a lack of resources, particularly in the Amazon region. [Text] [PA231824 Havana International Service in Spanish 1600 GMT 23 Jan 84]

CSO: 5400/2036



RECORD NUMBER OF TB CASES FEARED

Johannesburg THE CITIZEN in English 10 Jan 84 p 11

[Text]

Drought, overcrowding and unemployment could result in record numbers of new tuberculosis cases in South Africa and the homelands this year.

An editorial in Santa News, the journal of the South African National Tuberculosis Association, said 1984 would be a crisis year for the organisation.

"The toll taken by the drought will become evident and it is feared that TB cases will soar to new heights."

The spread of the disease would be especially harsh among Black people in South Africa and in the homelands a spokesman for the organisation, Miss Julia van Heerden, said.

"It is inevitable that we will see a countrywide escalation."

The latest available figures showed that 61 980 new cases of the disease were reported in 1982, of which 40 578 were among the Blacks.

Provisional figures for

1983 showed that more than 46 000 people contracted tuberculosis outside the homelands during the first nine months of last year.

Scattered reports were being received of greater numbers of patients being hospitalised because of the disease, which could normally be treated on an out-patient basis.

While the recent good rains might alleviate the situation, the effects of the 1982-83 drought would still be felt "for some time".

The areas that would probably be the worst affected were Natal, the Eastern Province and Border.

According to Miss van Heerden, who is Santa's public relations officer, overcrowding, unemployment and other effects of the drought lead to stress, "which runs down the whole health system" and makes it easier for people living in such conditions to contract the disease.

Santa would have to provide greater assistance and more money would have to be found to finance new and existing projects, including the provision of food and clothes parcels, helping with the payment of rentals, and field work such as vaccinations and testing for signs of the disease.

A new plan aimed at helping to prevent the spread of tuberculosis would be launched in Lichtenburg this month in which Black schools and the community would be involved.

The project would promote the growing of vegetables, especially at schools. Infected children (those in whom the disease is not active) would be treated by trained staff at schools in the town.

The scheme had been approved by the Department of Education and training. Santa hoped to extend the project to Klerksdorp and Potchefstroom soon, and to the rest of the country by July.

## TANZANIA

### BRIEFS

CHOLERA ON THE WANE--The Health Ministry says cholera outbreaks in the country have been decreasing over the last few eyars. The acting director of preventive treatment at the ministry, Dr Dahoma, told Radio Tanzania that between January and October last year 24 people died from the disease out of a total of 1,692 cases: in 1982, there were 309 cholera deaths out of 4,265 cases; and, in 1978 1,076 deaths out of 13,300 cases. [Summary] [EA180141 Dar es Salaam Domestic Service in Swahili 1300 GMT 17 Jan 84]

CSO: 5400/63

UGANDA

BRIEFS

CHOLERA OUTBREAK--An outbreak of cholera has killed 10 people in the north eastern shores of Lake Albert. The health staff in Masindi has already secured drugs and is carrying out a massive immunization exercise in the affected areas. [Excerpts] [Kampala Domestic Service in English 1000 GMT 8 Jan 84]

CSO: 5400/51

## BRIEFS

TUBERCULOSIS INCIDENCE--ZAMBIA with a population of 6.5 million people has 6,525 cases of tuberculosis (TB) known to medical authorities. University Teaching Hospital chief medical superintendent Dr Winford Lungu said yesterday this figure only covered adults. "It is just a tip of the iceberg of the population suffering from tuberculosis--the actual number could be more than what has been notified and treated." Dr Lungu was opening a provincial TB seminar at the Burma road campus of the National Institute of Public Administration (NIPA) in Lusaka. "In the case of children suffering from tuberculosis the figure might even be higher than for adults but you find that only a few are notified or getting proper treatment." For Lusaka Province with a population of 693,878, the figure notified as tuberculosis patients at the UTH was 562 last year. Dr Lungu who did not give comparative figures said Lusaka Urban district, which is mostly served by the UTH, has a population of 538,469. "The figure so notified represents the ratio of 1:1000. This figure of course is under notification because many tuberculosis patients either do not report to the hospital or are treated without proper notification." Compounding the problem were patients defaulting on treatment representing 50 to 60 per cent of the known cases. [Excerpt] [Lusaka TIMES OF ZAMBIA in English 30 Dec 83 p 1]

CSO: 5400/59

## BRIEFS

OUTBREAK OF MYSTERIOUS DISEASE--An outbreak of diarrhoea, whose causes are not yet known, has hit Gweru, affecting more than 2 000 residents of all ages over the past week. The city's Medical Officer of Health, Dr Tawanda Marufu, said yesterday that many samples of water had been collected from all over the city for both chemical analysis and culture and had proved satisfactory. Tests on samples of commonly consumed foods and stools of patients had failed to show the cause of the outbreak. "The condition affects both the young and old, irrespective of race or area of residence," said Cde Marufu. "We think it could be a viral disease, but we are definitely certain that it is not cholera or typhoid. We are continuing to carry out more tests on foods and the patients' stools." Cde Marufu said clinics, chemists and the Gweru General Hospital had reported more than 2 000 cases of diarrhoea patients seeking treatment in the past week. He urged all people suffering from the disease to report to their nearest clinic or general practitioner. [Text] [Harare THE HERALD in English 15 Dec 83 p 17]

CHOLERA OUTBREAK IN CHIREDDZI--Two people died from cholera in Chiredzi last week but the situation is now under complete control, the Secretary for Health, Dr Office Chidede, told THE HERALD yesterday. The outbreak, which he described as sporadic, had been at Mupinda in Chiredzi and had involved four confirmed cases and four others suspected of cholera. All cases involved Mozambicans who had crossed into Zimbabwe. "Of the four confirmed cases two died, but the situation is now completely under control and we have closed the nearby school because of the unsatisfactory sanitation conditions. We have deployed our medical health team, a doctor, nurses and a laboratory technician to the area and we have started giving prophylactic treatment to all the people who were living together with or were in contact with those who had the disease." Dr Chidede said the Ministry of Health had also enlisted the help of the police and the army to check the flow of Mozambicans into Zimbabwe, "because there is no real border in the area and people just come and go". An essential part of the strategy was to be careful to ensure that the people involved did not go farther into the country, "because then it would become a problem". [Text] [Harare THE HERALD in English 10 Dec 83 p 1]

## ANIMAL WEALTH DIRECTORATE ADMINISTERS INOCULATIONS

### Fourth Quarter Total

Damascus AL-BA'TH in Arabic 21 Oct 83 p 4

[Article: "Animal Wealth Directorate Administers 1.8 Million Inoculations"]

[Text] Damascus - AL-BA'TH--The total number of the various kinds of inoculations administered during the second quarter of the current year reached 4.8 million, including 3.5 million virus inoculations and around 600,000 bacterial inoculations.

The director of animal wealth in the Ministry of Agriculture added that more than 2.7 million pullets and laying hens have been treated for a number of diseases that afflict poultry.

Likewise, a number of the diseases that affect poultry were identified after some 1300 samples were taken from the pullets and laying hens. It was discovered from the results of experiments that the most important diseases afflicting this animal wealth are parasitic diseases of the intestines and liver.

Arrangements are now being made with the Supreme Council for Public Sector Companies to establish a veterinary clinic in Tartus; studies are also underway for the establishment of (quarantine) centers in Dar'a, Idlib, and Halab, in coordination with the Directorate of Rural Engineering.

On the other hand, technical studies and sessions planned for the current annual schedule have been completed which include the following:

The dairy cattle feeding session.

The economic breeding domestic poultry raising sessions.

Workers and technicians in the provinces from the farmers' unions participated in these sessions.

# Campaign Ends

Damascus AL-BA'TH in Arabic 25 Oct 83 p 4

[Article: "Conclusion of Vaccinations Against Animal Wealth Diseases"]

[Text] Damascus - AL-BA'TH--The Directorate of Animal Wealth in the Ministry of Agriculture and Agrarian Reform has undertaken to vaccinate cattle against rinderpest in all the country's provinces. A total of 581,517 head of cattle have been vaccinated. Mansur al-Khadhir, director of animal wealth in the Ministry of Agriculture and Agrarian reform, announced that 252 birds have been diagnosed in designated departments of the directorate. On the basis of that, 1,443,230 birds have been treated, and 676,143 laying hens have been treated in light of the results of the diagnoses of 65 diseases. The most important diseases treated are the chronic cold, vitamin deficiencies, poultry cholera, (kuwrad), and (kulsidia). The directorate also diagnosed 6,081 samples of blood, milk, various members, and animal substances, from which it identified brucellosis, streptococcus and staphylococcus infections and other diseases. The directorate took the necessary measures to eliminate these diseases.

He said that the directorate is now working with the directorates of agriculture and agrarian reform to establish two veterinary centers in Halab and Idlib at Bab al-Hawa and Akbas Square, and a third center in Tartus, in coordination with the Tartus directorate.

9310

CSO: 5400/4509

ZAMBIA

# TSETSE FLY INCREASE THREATENS WESTERN PROVINCE LIVESTOCK

Lusaka TIMES OF ZAMBIA in English 7 Jan 84 p 5

[Excerpt] THE tsetse fly population in Western Province is on the increase and threatens the livestock industry, provincial permanent secretary Mr Edward Himunyanga said in Mongu yesterday.

He said in order to completely wipe out the fly from the region, the Government would have to spend large sums of money which under the present economic hardships was not easy to come by. . . .

But speaking in a telephone interview from Livingstone, Mr Himunyanga said the Government had stepped up the picketing system at all entry points to the province.

"Through this system we have managed to contain the situation although I must admit that the flies are on the increase and this is having an adverse effect on the livestock industry," he said.

The uncontrolled movement of wild animals in game parks had been singled out as the major frustrating factor in containing the fly.

"Indeed if the Government has to eliminate the fly in the province it will require a lot of money although even the efforts by the Veterinary department are paying dividends," Mr Himunyanga said.

He hoped there would be no serious outbreak of sleeping sickness in the area.

Mr Himunyanga pointed out that the Ministry of Agriculture and Water Development was currently working out plans to control the fly.

CSO: 5400/65



COSTA RICA

MINOR OUTBREAK OF COFFEE RUST REPORTED

San Jose LA NACION in Spanish 16 Dec 83 p 4A

[Article by Lafitte Fernandez R]

[Excerpts] Pueblo Nuevo de Venecia de San Carlos--There has been an outbreak of coffee rust--considered the worst enemy of the world's coffee growers--in a small farm in this village.

This is the first time that this disease has been reported in Costa Rica since it was discovered in 1976 in Nicaragua from where it is presumed to have spread to this area.

The report was confirmed by Ministry of Agriculture and Livestock Raising [MAG] experts who are participating in the investigation. Minister of Agriculture and Livestock Raising Francisco Morales did not confirm or deny the report but said that today he will discuss the subject at a press conference.

The outbreak was discovered in Rafael Angel Rodriguez' coffee plantation. It is presumed that the spores which indicate the presence of the coffee rust have spread to neighboring farms.

It became known that yesterday several MAG experts were in Pueblo Nuevo. They will take special steps to prevent the spread of the disease.

Coffee rust is a parasitic fungus which attacks and destroys the coffee plant's leaves so that the plant stops producing and the loss of the crop follows shortly.

For several years the disease has been present in Brazil, Puerto Rico, Uruguay, Nicaragua, Bolivia, Peru, Honduras and Ecuador. Now Costa Rica will be added to that list of countries if we not succeed in eradicating it.

Rodriguez explained that 4 days ago he went as usual to cultivate his coffee plants and noticed yellowish spots on the leaves, characteristic of coffee rust spores, indicating the presence of the disease.

He added that some time ago he took courses on coffee rust. He immediately took samples of the affected leaves to the MAG offices in Venecia de San Carlos.

Rodriguez said that the samples were analyzed at the MAG plant health laboratories where according to the experts' reports it was determined that in fact it was coffee rust.

At least three experts went yesterday to the coffee plantation and made a detailed examination. They also informed Rodriguez that he may have to destroy the plants. At the same time, copper was spread on the plants. This is the usual method for treating the disease.

Rodriguez grows caturra coffee. He said it is thought the coffee rust may have invaded the plantation 4 months ago.

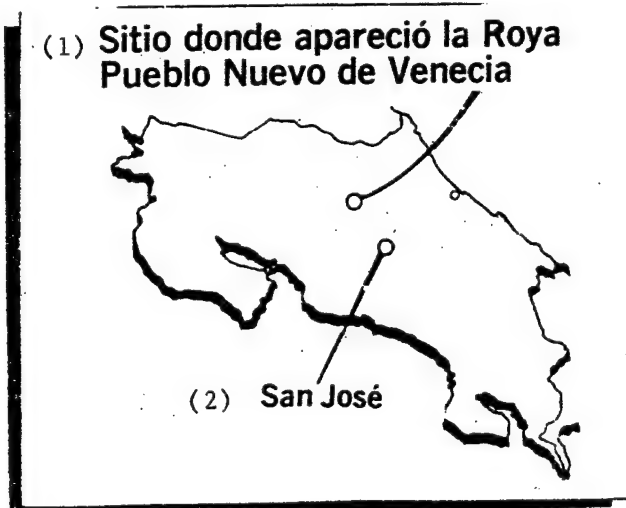
Some people presume that Nicaraguans who have come to the San Carlos area from the coffee plantations in Nicaragua may have transported the coffee spores in their clothing.

Rodriguez said yesterday that no foreigner has been in his coffee plantation but that some Nicaraguans helped harvest coffee in neighboring farms.

It became known that 16 additional MAG officials will go there today to determine the extent to which the disease has spread.

It was also learned that investigations were made which revealed the presence of the fungus in coffee plantations neighboring that of Rodriguez. This will compel the authorities to take special steps to halt the spread of the disease.

The canton of San Carlos has 3300 hectares planted with coffee belonging to 1500 small coffee growers. In 1982 their production was 90,000 fanegas of coffee.



- (1) Location where Coffee rust appeared,  
Pueblo Nuevo de Venecia  
(2) San Jose

EXTENSIVE SPRAYING CAMPAIGN COMBATS CITRUS PEST

Amman AL-DUSTUR in Arabic 24 Nov 83 p 5

Text The reply by the Ministry of Agriculture to the inquiry presented by Mr Sultan al-'Adwan, member of the National Consultative Assembly, about the pestilence now afflicting citrus groves in al-Aghwar reported that collective spraying of the groves had begun. It also said that the ministry and growers union had committed all of their resources for the success of the spraying campaigns.

The final report undertaken by the ministry on this matter stated in summary that the Ministry of Agriculture beginning in June of each year conducts a spraying campaign of the citrus groves to combat the pestilence of the red scale bug as well as spiders. The ministry has persistently conducted this spraying campaign every year for 15 years.

On 5 May 1983 the director of agriculture had requested, along with the chief of al-Shunah al-Janubiyah agriculture authority on 29 May 1983, that the collective spraying campaign was necessary for the Southern al-Shunah district, al-Kafrayn, al-Ramah, and Suwaymah because the tiny Australian scale bug had appeared in some of the groves in epidemic numbers which threatened the other groves in the region with contamination.

The ministry on 11 June 1983 agreed to conduct the spraying campaign free of charge in al-Shunah al-Janubiyah districts as well as in al-Kafrayn, al-Ramah, and Suwaymah. It gave the spraying equipment and chemicals to the care of the agronomist technicians of the agriculture authority of al-Shunah al-Janubiyah so that the farmers were given the insecticides and sprayers needed to combat this pestilence. These same made certain that sufficient spraying equipment was acquired from throughout the Kingdom for al-Shunah al-Janubiyah district.

A large number of the region's farmers were included in this campaign and they were provided with insecticides and sprayers. The treatment of this pestilence was largely successful amongst these farmers.

The report said that a number of the region's farmers, however, the minority, were not provided for according to the requests of the director of agriculture and the chief of the authority, and they were not given the necessary insecticides to spray their groves. Their groves remained

unsprayed and untreated against this pestilence so that it spread rapidly until it began to spread into the unaffected groves.

Some farmers who had already sprayed their groves and eliminated the Australian scale bug checked their groves and doubted that the other farmers had sprayed theirs since this pestilence had spread to previously unaffected groves from the infested ones.

The ministry set up a commission to examine the citrus groves in al-Shunah al-Janubiyah district and to present its recommendations as soon as possible in order to take the measures necessary to prevent this pestilence from spreading any further from infested groves to healthy ones.

This commission recommended that an immediate collective spraying campaign was necessary in order to kill the third generation, the final generation of this insect for this season. That would be using oils and systemic phosphoric insecticides which the ministry would have to provide.

The ministry purchased the necessary amount of the systemic phosphoric insecticide and it also bought ample stocks of oils from agricultural firms. It sent them to al-Shunah al-Janubiyah agriculture authority to get them to the afflicted citrus groves.

The report said that the collective spraying campaign reaching all the citrus groves in al-Shunah al-Janubiyah district, al-Kafrayn, al-Ramah, and Suwaymah, without exception, began on 15 October 1983. The ministry mobilized with the cooperation of the farmers' union in the Jordan valley 21 sprayers along with a mobile maintenance station. Spraying operations began first in the south and worked north. The campaign continues until now.

It has been observed that Christ thorn trees are an important host for this insect. For this reason measures were taken to exterminate the many trees of this species found growing on the mud walls of the citrus groves and along the roads between the groves. This was done in cooperation with the Jordan valley government which mobilized 20 workers with saws.

The report said that considering the huge number of Christ thorn trees growing in al-Shunah al-Janubiyah district and the impossibility of eliminating them all, the ministry will also spray these trees after completing the spraying of the citrus groves.

9587

CSO: 5400/4508

## BRIEFS

KIWIFRUIT BUD ROT DISEASE--AUCKLAND, Jan 7 (PA)--A killer disease may cut kiwifruit crops in New Zealand's biggest production area by 20 to 30 percent this year, the Kiwifruit Authority's managing director, Mr Don Brash said. Bud rot appeared to be pretty severe in the Te Puke area, which last year grew more than 60 percent of exports, Dr Brash said. But it was early days for forecasting the extent and effect of the rot. "There's some prospect that increases in other parts of the country could offset the situation," he said. The DSIR's plant diseases division director, Dr Peter Brook, said the percentage of bud rot was not necessarily equal to the number of fruit lost. "Not every bud will always produce a fruit." As yet the DSIR has no idea of why this season should be so favourable to the disease. The relevant bacteria were present on or in the plants all the time, but only in the right conditions did they multiply, get in and get going, he said. Dr Brash said the general expectation was that a Ministry of Agriculture national "medium yield" figure of about 13 million export trays of kiwifruit would not be met. Trays could contain between about 25 and 46 kiwifruit, with an average of about 30. Dr Brash said by the end of January "we should have a pretty good fix" on the exact losses bud rot will cause. [Text] [Wellington THE EVENING POST in English 9 Jan 84 p 8]

GRAPE DISEASE STRIKES--NZPA Blenheim--The grape pest phylloxera has been identified in a private vineyard near Blenheim. Marlborough was the one grape-growing area in New Zealand which had been free of the disease. Phylloxera is an aphid which lives in the soil and feeds on the roots of grapevines. It weakens the vine [Excerpt] [Auckland THE NEW ZEALAND HERALD in English 10 Jan 84 p 3]

CSO: 5400/4380

COTTON CROP FAILURE SAID CAUSED BY WRONG PESTICIDES

Islamabad THE MUSLIM in English 2 Jan 84 p 8

[Article by Sikandar Hayat]

[Text] Islamabad, Jan. 1: While there is no official word even now on the causes which led to the failure of the cotton crop, the agro-scientists identify the 'wrong' pesticides policy as the villain of the piece. "One should not find fault with the weather alone," said a senior agricultural scientist who did not want to be identified.

He said weather becomes relevant for crops only when there are floods or severe drought; in all other cases including excessive rains like the country had at the time of cotton sowing last year timely precautions can save the crops.

Some other agro-scientists hold the view that in the absence of any resistance testing, even at the clinical level, it was not fair to relax pest-scouting. The agency handling the cotton crop is said to have only elementary know-how and technology to effectively combat various attacks the cotton can come under.

There is also confusion about the total cotton production this year, and until the Federal Agriculture Minister speaks, after the investigations now reportedly nearing completion, this confusion is expected to persist. Against the target of 5.2 million bales the random estimates about the expected output vary from 3 million bales to 3.5 million bales.

The cultivators have generally complained against the sub-standard pesticides. Then there have also been reports of suspension of aerial spray.

It may be recalled that now the pesticides are handled by the private sector. Only the cost of the aerial spray is met by the government as a subsidy, but during the last cotton crop no cultivator in Punjab came forward with a request for aerial spray.

The pesticides cover in the rain-fed (Barani) area is critically thin, primarily because the private companies find it uneconomical to operate from isolated places which have extremely low demand.

Before the denationalisation of the pesticides the extension staff of the agricultural departments was responsible for pest-scouting and remedial measures including supply of pesticides.

The officially explanation, available, however, unofficially, is like this. [as published] The delayed and excessive rains mushroomed the vegetative growth on the one hand and delayed the flowering of cotton crop on the other hand. Since the weather had become cool by the time the cotton-balls opening was required, the flowering was adversely affected.

The rains also waterlogged the roots clogging the supply of nutrition from the ground to the flowers. It was a sort of physiological starvation of the cotton crop, the explanation adds.

The excessive rains also promoted pest infestation, requiring four to five sprays but most of the farmers did not do that and were content with two or three sprays which ultimately proved ineffective.

The allegation that the pesticides were sub-standard is also rejected by the officials on the ground that no good businessman would undermine the confidence of his customers by supplying inferior or sub-standard goods.

While this controversy continues there are reports that the bastmati rice crop is also reportedly damaged by 20 per cent by the Stemborer attack. The failure of the pest control measures is cited as the main cause for this attack in the rice-bowl area of Lahore-Gujranwala-Sialkot.

CSO: 5400/4705

## BRIEFS

ARMYWORMS THREATEN CROPS--ARMYWORMS are threatening crops in four regions and are reportedly attacking sorghum, millet, bulrush and maize. Scattered outbreaks of the worms are reported in Dodoma and Morogoro regions while chances for a bigger outbreak is predicted in Mtwara and Lindi regions. The coordinator of the Tengeru-based Pest Control Services, Ndugu Albert Mushi, said the affected areas in Dodoma were Chonyu (Mpwapa District), Makangiwa (Dodoma Rural), and Mpunguzi and Hombolo (Dodoma Urban). In Morogoro, armyworms have been reported in Kilosa District. Unconfirmed outbreaks are also reported in Namganga I and Namganga II villages in Mtwara Region. The coordinator called on all regions to take immediate steps to fight the pests. Dodoma had 5,000 litres of DDT in stock and other necessary pesticides. Experts are already in the affected areas, he added. Another 1,600 litres of Fenitrothion have been sent to Dodoma while experts from Tengeru have also been sent to Dodoma to fight the pests. [Text] [Dar es Salaam DAILY NEWS in English 1 Jan 84 p 1]

CSO: 5400/62



## BRIEFS

PESTS DESTROY MAIZE, CASSAVA--PESTS have destroyed more than ten hectares of maize in Namwala and several hectares of cassava in Chililabombwe. In Namwala, district agricultural officer Mr Hubert Simpasa said yesterday that there had been an outbreak of army worms and fat johns in the district which destroyed maize. Mr Simpasa has appealed to farmers to make use of the available DDT granular and endosulfan to fight the pests and save the crops. There was no need for pests to destroy crops when there was a way of preventing that to happen. Chililabombwe district agricultural officer Mr John Mvula said a swarm of bugs had destroyed several cassava fields in Chitobula, Kanenga, Chimfunshi, Milyashi and other areas on the outskirts of the district. He described the situation as serious. Bugs were eating cassava leaves, stem and roots. Several farmers in the district have complained about the bugs which had invaded the district during the past few weeks. [Text] [Lusaka TIMES OF ZAMBIA in English 30 Dec 83 p 1]

CSO: 5400/59

END